

<p style="text-align: center;"><i>School Rule Development Committee</i> <i>Indoor Air Quality Workgroup Decision Agenda</i></p>
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Decision Agenda Results for:

March 8, 2005 (page 2-3)

March 29, 2005 (pages 4-12)

April 12, 2005 (pages 13-17)

Introduction: Presented in the table(s) beginning on the next page are proposals in response to identified topics or issues relating to environmental health and safety in schools. For each topic a brief statement of the resulting problem is provided, as well as citations for related reference materials or documents.

The proposals described are intended to capture the points of group discussion where ideas for addressing the problems have coalesced. Prior to voting on these proposals, the group will have the opportunity to “fine tune” the proposals. Then, for each proposal, the group will identify through the process of “Green, Yellow, & Red” voting, those proposals to forward to the School Rule Development Committee (SRDC). Each proposal will be measured by the group according to where in the regulatory framework they prefer to see the proposal implemented, in Rule or in Guidance.

Workgroup members will use color cards to indicate their preference on the proposals. A green card indicates a “yes or strong support” vote, a yellow card indicates “moderate support” and a red card indicates “no or no support.” For a proposal to be forwarded to the SRDC, two-thirds of the votes need to be green or yellow for a two-thirds majority.

School Rule Development Committee

Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>MARCH 8, 2005</u>		Number Present: 23			
		50% +1= 12	Two Thirds = 16		
Topic	Ventilation				
Problem Statement	The existing SBOH rule (Chapter 246-366 WAC) states: “All rooms used by students or staff shall be kept reasonably free of all objectionable odor, excessive heat or condensation. All sources producing air contaminants of public health importance shall be controlled by the provision and maintenance of local mechanical exhaust ventilation systems as approved by the health officer.”				
	Ventilation provides an effective means of controlling contaminants that are generated by processes and pollutants used in the school environment. Properly ventilated spaces will also minimize the spread of communicable disease in the school setting. There is a growing body of evidence that adequately ventilated spaces have a positive impact on student absenteeism and productivity.				
	School facilities present unique challenges for ventilation systems, with internal spaces that are often subject to a wide range of occupancies, such as gymnasiums, or dedicated instructional areas, such as band & choir rooms or automotive & carpentry shops. Special use areas, such as the health room, present their own particular demands on ventilation systems.				
	Ventilation standards for design and performance exist for public and private buildings. Chapter 51-13 WAC and the ASHRAE 62.1 2004 are examples of commonly use standards-of-practice in the field of ventilation. These standards typically address the methods and materials used in ventilation systems, as well as performance requirements.				
Reference / Research	Maintenance and repair of ventilation systems is a critical element to assure on-going performance. Assessment of on-going functional performance is an integral part of plant maintenance. School maintenance staff and processes would benefit from the identification of effective and economical approaches to assessing ventilation system performance.				
	(References that are highlighted are included in the 3-ring binder of materials provided to workgroup members. Please refer to these as needed while considering the proposals.) WAC 246-366, WAC 51-13 and ASHRAE 62.1 2004				
Proposal A:	Recommend that the standards for ventilation system design, construction, installation and performance in school facilities be consistent with those established in Chapter 51-13 WAC.	Proposal In?	Workgroup Vote		
			GRN	YEL	RED
		Rule	20	1	2
Desired Outcomes	Standards for ventilation system design, construction, installation and performance are updated to current industry standard-of-practice.	Guidance	6	9	8
Proposal B:	Recommend the use of CO ₂ measurement in occupied spaces as a means of assessing ventilation system performance, as part of an on-going facility operation & maintenance program by trained and qualified personnel.	Proposal In?	Workgroup Vote		
			GRN	YEL	RED
		Rule	10	4	9
		Guidance	14	2	7

School Rule Development Committee
Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>MARCH 8, 2005</u>		Number Present: 23			
		50% +1= 12	Two Thirds = 16		
Desired Outcomes	An effective measure of ventilation performance is established, providing school maintenance personnel with an easily applied tool to monitor ventilation performance throughout their facility.				
Proposal C:	Recommend that the standards for ventilation system design, construction, installation and performance in school facilities address the unique needs presented by special use areas, such as health rooms, and career & technical instructional areas.	Proposal In?	Workgroup Vote		
		Rule	GRN	YEL	RED
		Guidance	18	5	0
			8	6	9
Desired Outcomes	Adequately ventilated health rooms (under negative pressure) to minimize the spread of contagious disease. Ventilation throughout the school facility that meets the needs of students and staff in the wide variety of educational activities during the day.				
Proposal D:	Recommend that DOH update guidance regarding ventilation systems to include references to the current ASHRAE 62.1.	Proposal In?	Workgroup Vote		
		Rule	GRN	YEL	RED
		Guidance	21	2	0
			No Vote		
Proposal E:	Recommend the use of CO ₂ measurement in occupied spaces as a means of assessing ventilation system performance, as part of an on-going facility operation & maintenance program by trained and qualified personnel. CO ₂ levels greater than 700 ppm over ambient level is a threshold level for further evaluation of ventilation system performance.	Proposal In?	Workgroup Vote		
		Rule	GRN	YEL	RED
		Guidance	11	10	2
			11	3	9

School Rule Development Committee

Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>MARCH 29, 2005</u>		Number Present: 21			
		50% +1= 11	Two Thirds = 14		
Topic	Siting				
Problem Statement	The first step in providing a safe and healthy school is to site the school in a manner that will not impact the structure and its occupants after it is built. This includes making sure that the proposed site is not impacted by adjacent businesses or the remnants of previous businesses. Natural conditions of soil, topography, hydrogeology, etc. can also impact school facility design and future operation.				
	The existing SBOH rule (Chapter 246-366 WAC) minimally addresses Site Approval, with requirements for written approval from the local health officer for the proposed site. The proposed site must be of sufficient size, and meet specified ambient noise level requirements.				
Reference / Research	(References that are highlighted are included in the 3-ring binder of materials provided to workgroup members. Please refer to these as needed while considering the proposals.) DOH “Best Management Practices Manual For School Indoor Air Quality”, EPA “Design Tools for Schools” http://www.epa.gov/iaq/schooldesign/				
Proposal A:	Recommend that sites proposed for development of school facilities be subjected to a Phase I Environmental Site Assessment at the appropriate time in the school development timeline, as the first step to identifying and addressing the impact of site characteristics on school facility development and operation.	Proposal In?	Workgroup Vote		
Desired Outcomes	Adequate and timely site evaluations provide the information needed to fully characterize a proposed school facility development site. With such characterization, the site conditions that may adversely impact the health and safety of future occupants may be appropriately addressed, including the option to reject the proposed site.	Rule	21	0	0
		Guidance	No Vote		
Proposal B:	Recommend that the DOH develop guidance or update the K-12 Health & Safety Guide to address Environmental Site Assessments (ESA), including the elements of an ESA and criteria for determining the appropriate time in the school development timeline to conduct an ESA.	Proposal In?	Workgroup Vote		
		Rule	21	0	0
		Guidance	No Vote		

School Rule Development Committee

Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>MARCH 29, 2005</u>		Number Present: 21			
		50% +1= 11	Two Thirds = 14		
Topic	Design				
Problem Statement	A wide range of elements and features come together in the design of a school facility. Size, use of space, ventilation, natural and artificial lighting, heating & cooling, efficiency of operational resources, materials and surfaces, traffic patterns, and response to the local environment and climate, are but a few of the issues to be addressed to achieve a well designed facility. The existing SBOH rule (Chapter 246-366 WAC) minimally addresses building design elements.				
Reference / Research	The Washington Sustainable Schools Protocol is a regionally-focused document based on other school design protocols, such as the California Collaborative for High Performing Schools, and the EPA “Design Tools for Schools”. These documents describe the desired outcomes for school design—the “what we want to accomplish” when schools a designed and constructed. Other design and construction standards and codes, such as the International Building Code, the Washington State statutes and codes that address building design and construction, and local building codes, identify how buildings are to be designed and constructed. <i>(References that are highlighted are included in the 3-ring binder of materials provided to workgroup members. Please refer to these as needed while considering the proposals.)</i> EPA “Design Tools for Schools” , http://www.epa.gov/iaq/schooldesign/ Washington Sustainable Schools Protocol, California’s Collaborative for High Performing Schools, OSPI’s School Facilities Manual http://www.k12.wa.us/schfacilities/pubdocs/SFMANUAL/intro.pdf				
Proposal A:	Recommend that school facilities are designed according to regionally-appropriate design standards, such as those delineated in the Washington Sustainable Schools Protocol.	Proposal In?	Workgroup Vote		
		Rule	GRN	YEL	RED
		Guidance	17	4	0
			5	10	6
Desired Outcomes	School facilities are designed with elements and features that are compatible with the environment and climate challenges throughout the various regions of Washington State.				

School Rule Development Committee

Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>MARCH 29, 2005</u>		Number Present: 21-22		
		50% +1= 11-12	Two Thirds = 14-15	
Topic	Construction			
Problem Statement	Properly designed buildings, if not properly constructed, will fail to meet their potential for providing a healthy, safe, and effective learning environment for students. Experience has shown that when construction methods, materials, and oversight fail to assure that the school design is accurately realized, problems result with frequent IAQ ramifications.			
	The existing SBOH rule (Chapter 246-366 WAC) minimally addresses construction oversight for assurance of construction consistent with building design.			
	A constructability review is defined as a cost control technique which is based on the review of project documents by mechanical, electrical, structural, construction, and design professionals prior to a request for bids. The purpose of a constructability review is to identify potential claim or problem areas and deficiencies that may occur as a result of errors, ambiguities, omissions, discrepancies, and conflicts in design documents. The study shall consist of a forty-hour workshop involving a minimum of a five-person team pursuant to WAC 180-29-066. (WAC 180-27-080)			
	Building commissioning is another useful tool to assure that the systems installed in school facilities function as intended and support the design elements of the building. Commissioning is characterized by the development of project-specific Commissioning Plans that describe the elements and systems to be reviewed during the design, construction, and post-construction phases. The plan characterizes what the expected function and performance is to be, and details how these elements and systems are to be evaluated.			
Reference / Research	<i>(References that are highlighted are included in the 3-ring binder of materials provided to workgroup members. Please refer to these as needed while considering the proposals.)</i> ASHRAE 62.1-2004 (Subsection 5) WAC 180-27-080 Value Engineering, Constructability & Building Commissioning; 1998 Attorney General report; International Building Code; Briefing Paper from the Council of Educational Facility Planners International; Collaborative for High Performance Schools; Building Commissioning Association			
Proposal A:	Recommend that all school facility construction projects requiring a building permit from the local building official undergo a constructability review.	Proposal In?	Workgroup Vote	
Desired Outcomes	Greater assurance that school facilities are well constructed (high quality materials, methods, and construction skills) consistent with the approved design.	Rule	GRN	YEL
		Guidance	RED	
		21 members present / 14		
Proposal B:	Recommend that the potential for entrainment of ambient pollutants and re-entrainment of emitted pollutants and moisture into the air handling systems be specifically addressed during design development and plan review phases.	Proposal In?	Workgroup Vote	
		Rule	GRN	YEL
		Guidance	RED	

School Rule Development Committee

Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>MARCH 29, 2005</u>		Number Present: 21-22			
		50% +1= 11-12		Two Thirds = 14-15	
Desired Outcomes	Greater assurance that the potential problems caused by re-entrainment of pollutants is addressed in the design stage of facility development and assessed during the constructability review process.	22 members present / 15			
Proposal C:	Recommend that constructability review information be provided to LHJs.	Proposal In?	Workgroup Vote		
			GRN	YEL	RED
Desired Outcomes	Greater assurance that school facilities are well constructed (high quality materials, methods, and construction skills) and consistent with the approved building design.	Rule	18	4	0
		Guidance	5	16	1
		22 members present / 15			
Proposal D:	Recommend that all new and remodeled school facilities undergo commissioning.	Proposal In?	Workgroup Vote		
			GRN	YEL	RED
Desired Outcomes	Greater assurance that mechanical systems installed in school facilities are well constructed (high quality materials, methods, and construction skills); consistent with the approved building design, and function as intended.	Rule	22	0	0
		Guidance	No Vote		
		22 members present / 15			
Proposal E:	Recommend that existing school facilities undergo HVAC re-commissioning of suitable scope in response to persistent and significant HVAC-related IAQ events or monitoring results, such as sustained CO ₂ levels exceeding 700 ppm over ambient levels.	Proposal In?	Workgroup Vote		
			GRN	YEL	RED
Desired Outcomes	Greater assurance that mechanical systems continue to function as intended throughout the current 30 year lifetime expectancy of school facilities.	Rule	15	6	1
		Guidance	7	5	9
		22 members present for rule /15 21 members for guidance /14			
Proposal F:	Recommend that OSPI recognized construction management concepts be applied to new and remodeled school construction projects which require a building permit.	Proposal In?	Workgroup Vote		
			GRN	YEL	RED
Desired Outcomes	Greater assurance that school facilities are well constructed (high quality materials, methods, and construction skills) and consistent with the approved building design.	Rule	15	3	4
		Guidance	11	2	9
		22 members present / 15			

School Rule Development Committee

Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>MARCH 29, 2005</u>		Number Present: 21-22																	
		50% +1= 11-12	Two Thirds = 14-15																
Proposal G:	<p>Original Proposal Language: Recommend that new and remodel school construction plan review for the purpose of securing construction permit approval, that the local building code official and the local health official conduct a cooperative review of the plans and specifications to assure that building codes and health protections are addressed in a cohesive and comprehensive manner.</p> <p>IAQ Workgroup Re-worked Language: Recommend that new and remodel school construction plans be reviewed for the purpose of securing construction permit approval, that the local building code official and the local health official conduct a cooperative review of the plans and specifications to assure that building codes and health protections are addressed in a cohesive and comprehensive manner.</p> <p>DOH Staff Proposed Re-write for Clarity: For school construction projects requiring a construction permit, recommend that the local building code official and the local health official share with each other the results of their review of plans and specifications, to assure that building codes and health protections are addressed in a cohesive and comprehensive manner.</p>																		
	Desired Outcomes	Complete and effective review of plans and specifications.																	
	Proposal H:	Recommend that LHJs interact with the project design team early in the design development phase to address potential health & safety issues.																	
		<table><tr><th rowspan="2">Proposal In?</th><th colspan="3">Workgroup Vote</th></tr><tr><th>GRN</th><th>YEL</th><th>RED</th></tr><tr><td>Rule</td><td>9</td><td>3</td><td>9</td></tr><tr><td>Guidance</td><td>3</td><td>12</td><td>6</td></tr></table> <p>21 members present / 14</p>	Proposal In?	Workgroup Vote			GRN	YEL	RED	Rule	9	3	9	Guidance	3	12	6		
Proposal In?	Workgroup Vote																		
	GRN	YEL	RED																
Rule	9	3	9																
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Proposal In?	Workgroup Vote																		
	GRN	YEL	RED																
Rule	16	5	1																
Guidance	6	11	5																

School Rule Development Committee
Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: MARCH 29, 2005		Number Present: 22	
		50% +1= 12	Two Thirds = 15
Topic	MOLD		
Problem Statement	<p>The existing SBOH rule (Chapter 246-366 WAC) does not address the growing problems and concerns raised by mold growth in schools that have not been kept dry and clean. There is an abundance of evidence suggesting that mold growth in occupied spaces can contribute to respiratory health problems and allergic responses in children and adults who are exposed.</p> <p>The presence of and exposure to mold is a significant health concern in occupied spaces. When buildings are kept clean, dry, and well ventilated, mold growth does not occur. When water intrusion or moisture conducive to mold growth occurs for other reason, mold growth is likely. When mold growth occurs in schools, immediate remediation, including diagnosis and elimination of the water intrusion pathway, is critical. Various guidance documents exist to assist school maintenance personnel with this work.</p> <p>When mold exposures occur, communication between school district personnel and parents, students, teachers, other staff, and citizens is also critical. While examples of communication failure exist, many school districts have implemented effective mold response plans and strategies that are characterized by rapid remediation and full disclosure of the events to their communities.</p> <p>Various guidance documents exist to assist school district personnel in the work associated with monitoring school facilities for water intrusion, moisture accumulation, mold growth, mold remediation, and communication, including guidance from the USEPA and New York City.</p>		
Reference / Research	<p><i>(References that are highlighted are included in the 3-ring binder of materials provided to workgroup members. Please refer to these as needed while considering the proposals.)</i></p> <p>EPA “Mold Remediation In Schools And Commercial Buildings” http://www.epa.gov/mold/mold_remediation.html; NYC guidelines “Assessment And Remediation Of Fungi In The Indoor Environment;” ACGIH TLV statement; IICRC S-520; and “Guidance for Clinicians on the Recognition and Management of Health Effects Related to Mold Exposure and Moisture Indoors” http://oehc.uchc.edu/clinser/indoor.htm</p>		

School Rule Development Committee
Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>MARCH 29, 2005</u>		Number Present: 22			
		50% +1= 12	Two Thirds = 15		
Proposal A:	Recommend that mold prevention and response plans be established and implemented to address the potential for mold growth and the remediation of mold when it occurs. Key elements of such plans includes: <ul style="list-style-type: none">• Identification and resolution of moisture accumulation and water intrusion within the structure and building materials of the school facility• Monitoring and maintaining ventilation systems• Immediate and appropriate response to mold that is identified, following remediation guidelines from sources including EPA and NYC• Notification of students, parents, teachers & staff, and visitors regarding mold remediation• Accommodations available to limit the exposure of sensitive and concerned individuals to mold until mold remediation is completed, such as those accommodations described by DOH guidance to limit exposure	Proposal In?	Workgroup Vote		
			<i>GRN</i>	<i>YEL</i>	<i>RED</i>
		Rule	12	5	5
		Guidance	8	6	8
Desired Outcomes	School facilities are kept dry and well ventilated. If mold growth occurs, remediation is quick and complies with nationally established methodologies. The school community is appropriately and quickly notified of mold events.				
Proposal B:	Recommend that mold remediation methodologies follow national guidance such as that provided by EPA and NYC, including abatement by trained and qualified staff or firms.	Proposal In?	Workgroup Vote		
			<i>GRN</i>	<i>YEL</i>	<i>RED</i>
		Rule	21	1	0
		Guidance	5	5	12
Desired Outcomes	Mold events are remediated quickly, according to accepted methods by qualified and trained personnel, limiting the exposure risk to students, teachers, staff, and visitors.				

School Rule Development Committee

Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>MARCH 29, 2005</u>		Number Present: 22			
		50% +1= 12	Two Thirds = 15		
Proposal C:	<p>Recommend that IAQ & mold communication plans be established and implemented to assure that all who may need to know are informed about possible environmental exposures leading to health risks. Key elements of such plans includes:</p> <ul style="list-style-type: none">• Communication response levels commensurate with the IAQ event• Rapid communication with the school and notification to the public• Site posting• Specific communication with parents of students sensitive to IAQ exposures, asthmatic, or immune-compromised• Accommodations available to limit the exposure of sensitive and concerned individuals to mold until mold remediation is completed, such as those accommodations described by DOH guidance to limit exposure	Proposal In?	Workgroup Vote		
		Rule	GRN	YEL	RED
Desired Outcomes	Timely information flow to affected students, parents, teachers & staff, and visitors.	Guidance	13	8	1
			8	5	9
Proposal D:	<p>Recommend that DOH provide guidance on approaches to monitor for water intrusion and moisture problems within their schools including the use of moisture meters to assess the moisture content of building materials used in the school facility. Guidance to include suitable options in response to identified water intrusion and moisture accumulation.</p>	Proposal In?	Workgroup Vote		
		Rule	GRN	YEL	RED
Desired Outcomes	Minimize the time needed to respond to water intrusion / mold problems and provide the schools with an effective means to quickly survey for water problems.	Guidance	16	2	4
				No vote	
Proposal E:	<p>Recommend that DOH provide guidance and suitable response strategies reflective of the full range of water intrusion and moisture accumulation events that may occur in the school facility environment. Include strategies to identify, correct, and mediate problems resulting from water intrusion and moisture accumulation when visual confirmation of suspected problems is not achieved.</p>	Proposal In?	Workgroup Vote		
		Rule	GRN	YEL	RED
Desired Outcomes	Schools will have information and guidance to assist them in the development and implementation of effective response strategies to problems linked to water intrusion and moisture accumulation in the school facility.	Guidance	16	1	5
			No Vote		

School Rule Development Committee
Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>MARCH 29, 2005</u>		Number Present: 22			
		50% +1= 12	Two Thirds = 15		
Proposal F:	Recommend that the following principles be delineated: 1. To prevent and limit mold growth, timely and appropriate response to water intrusion and moisture accumulation within the school facility requires diligent surveillance and immediate correction (24 to 48 hours). 2. Mold remediation without eliminating the cause—the water intrusion or moisture accumulation—is ineffective in controlling exposure to mold. 3. Eliminating the cause of water intrusion or moisture accumulation without remediating resulting mold is an incomplete response. Moist and dry forms of mold can present potential indoor air quality and personal health hazards.	Proposal In?	Workgroup Vote		
			GRN	YEL	RED
		Rule	14	7	1
		Guidance	6	6	10
Desired Outcomes	Clearly delineated principles will assist in the development and implementation of response plans for IAQ and mold-related events.				
Proposal G:	Recommend that schools be required to accommodate sensitive and concerned individuals to limit their exposure to mold until mold remediation is completed, through the selection of appropriate accommodation options, such as those described in DOH guidance.	Proposal In?	Workgroup Vote		
			GRN	YEL	RED
		Rule	12	8	2
		Guidance	8	5	9

School Rule Development Committee
Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>April 12, 2005</u>		Number Present: 20			
		50% +1=11	Two Thirds =14		
Topic	Occupancy Prior to Completion of Construction				
Problem Statement	Through discussion, the workgroup has become aware that occupancy of school facilities occasionally occurs before construction of the buildings and installation of all mechanical systems is fully complete. There are a variety of reasons that lead to this. Temporary Occupancy Permits may be issued by the local building official. These are typically conditional permits; however members of the workgroup report experiences where follow-up and adherence to the conditions of the Temporary Occupancy have been lacking. Local health jurisdiction representatives relate that they are rarely consulted on matters of Temporary Occupancy.				
Reference / Research	<i>(References that are highlighted are included in the 3-ring binder of materials provided to workgroup members. Please refer to these as needed while considering the proposals.)</i> Workgroup discussion and presentation by Wade Duffy, Building & Code Official for the City of Lacey.				
Proposal A:	Recommend that as a condition of granting a Temporary Occupancy Permit for new or remodeled school facilities by local building officials, that a written plan be reviewed and approved by the LHJ addressing the conditions of such temporary occupancy and the time frames for meeting or correcting the identified conditions.	Proposal In?	Workgroup Vote		
		Rule	GRN	YEL	RED
		Guidance	5	5	10
			6	11	3
Desired Outcomes	Conditions of temporary occupancy, such as what remains to be satisfactorily addressed and the timeframe for completion will be delineated, and reviewed and approved by the Local Health Officer for health and safety concerns.				

School Rule Development Committee
Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>April 12, 2005</u>		Number Present: 20			
		50% +1= 11	Two Thirds = 14		
Topic	Building Maintenance				
Problem Statement	The existing SBOH rule (Chapter 246-366 WAC) does not provide direction about cleaning frequency or elements of a green cleaning program, nor does it address frequency of air filter replacement or duct cleaning.				
Reference / Research	(References that are highlighted are included in the 3-ring binder of materials provided to workgroup members. Please refer to these as needed while considering the proposals.) ASHRAE 62.1-2004, National Air Duct Cleaners Association (NADCA) guidelines on duct cleaning, GSA guidelines on green cleaning.				
Proposal A:	Recommend that DOH provide guidance on the frequency of various cleaning activities.	Proposal In?	Workgroup Vote		
Desired Outcomes	Minimize the impact of dirty buildings on the occupants.	Rule	15	3	2
		Guidance	No Vote		
Proposal B:	Recommend that DOH provide guidance on “green cleaning” materials and methods.	Proposal In?	Workgroup Vote		
Desired Outcomes	Reduce the impact of toxic cleaning chemicals to students and staff.	Rule	20	0	0
		Guidance	No Vote		
Proposal D:	Recommend that DOH provide guidance for ventilation system maintenance and service, , based on guidance available from, EPA, ASHRAE, and other sources.	Proposal In?	Workgroup Vote		
Desired Outcomes	Greater assurance that ventilation system air ducts are cleaned to address post-filter dust accumulation that may adversely impact air quality in occupied spaces.	Rule	20	0	0
		Guidance	No vote		

School Rule Development Committee
Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>April 12, 2005</u>		Number Present: 20			
		50% +1= 11	Two Thirds =14		
Topic	Ventilation				
Proposal F:	Recommend that the interior surfaces of air handling ducts be smooth, non-friable and cleanable when renovating ducts in existing school facilities and in new construction and remodeling.	Proposal In?	Workgroup Vote		
			GRN	YEL	RED
		Rule	18	2	0
		Guidance	5	9	6
Desired Outcomes	Materials and methods used in design and construction of ventilation systems do not inadvertently contribute to poor indoor air quality.				

Decision Agenda for: <u>April 12, 2005</u>		Number Present:20	
		50% +1= 11	Two Thirds = 14
Topic	Temperature / Heating & Cooling		
Problem Statement	Temperature requirements in the existing SBOH rule (Chapter 246-366 WAC) are vague and non-specific. WAC 246-366 states in section 080 that “rooms used by students and staff shall be kept reasonably free of excessive heat.” Section 090 states that “The entire facility inhabited by students and employees shall be heated during school hours to maintain a minimum temperature of 65 degrees F except for gymnasiums which shall be maintained at a minimum temperature of 60 degrees F.” Section 100 states that “Heating, ventilating and /or air conditioning systems shall be equipped with automatic room temperature controls.”		
	While the impact of temperature on human health is known, the exact impact of widely varying temperatures on student performance are not widely documented, however there is evidence to support improved performance in schools where indoor environmental quality has been addressed to include temperature.		
	Operational temperature ranges, for heating and cooling cycles, apply to new, remodeled, and repaired school facilities through a series of linked standards, statutes, codes and entities at the national, state and local level. These temperature ranges apply to the design of heating and cooling systems and to their operation. The SBOH rules co-exist with this framework to address heating and cooling in school facilities.		
	The temperature provisions of the SBOH rules apply to all schools, existing and future, and may apply additional requirements. For example, in addition to the operational temperature ranges (mentioned above), the current SBOH rule establishes a minimum temperature for school facilities (65 degrees). This minimum is below the customary operational temperature range.		
Reference / Research	Temperature range performance standards exist in industry standards, such as the ASHRAE 55-2004.		
	<i>(References that are highlighted are included in the 3-ring binder of materials provided to workgroup members. Please refer to these as needed while considering the proposals.)</i> WAC 246-366 and ASHRAE 55-2004		

School Rule Development Committee

Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>April 12, 2005</u>		Number Present:20		
		50% +1= 11	Two Thirds = 14	
Proposal A:	Recommend that the <i>minimum</i> temperature currently established in the SBOH rule be retained in the rule.	Proposal In?	Workgroup Vote	
Desired Outcomes	Maintains the current minimum temperature in all school facilities.	GRN	YEL	RED
		Rule	20	0
		Guidance	No Vote	
Proposal B:	Recommend that a <i>maximum</i> temperature (linked to humidity levels) be established.	Proposal In?	Workgroup Vote	
Desired Outcomes	Establishes a maximum temperature in all school facilities.	GRN	YEL	RED
		Rule	17	1
		Guidance	6	10

Decision Agenda for: <u>April 12, 2005</u>		Number Present:19			
		50% +1= 10	Two Thirds = 13		
Topic	Humidity				
Problem Statement	The existing SBOH rule (Chapter 246-366 WAC) does not provide a range of acceptable humidity levels. The rule addresses humidity in section 080: “the areas used by students and staff shall be kept reasonably free of all excessive heat or condensation.”				
	Low humidity can cause dehydration and accompanying health symptoms. High humidity can cause condensation and the growth of mold and contribute to respiratory symptoms.				
	Operational humidity ranges, for heating and cooling cycles, apply to new, remodeled, and repaired school facilities through a series of linked standards, statutes, codes and entities at the national, state and local level. These humidity ranges apply to the design of heating and cooling systems and to their operation. The SBOH rules co-exist with this framework to address humidity in school facilities.				
Reference / Research	(References that are highlighted are included in the 3-ring binder of materials provided to workgroup members. Please refer to these as needed while considering the proposals.) ASHRAE 55-2004				
Proposal C:	Recommend that DOH develop guidance documents to assist schools with humidity conditions that may contribute to health problems.	Proposal In?	Workgroup Vote		
			GRN	YEL	RED
		Rule	19	0	0
		Guidance	No Vote		

School Rule Development Committee

Indoor Air Quality Workgroup Decision Agenda

Decision Agenda for: <u>April 12, 2005</u>		Number Present: 19																		
		50% +1=10		Two Thirds = 13																
Topic	Frequency of rule development and updating of standards																			
Problem Statement	Historically, updating the State Board of Health rules for K-12 school facilities has occurred infrequently. As a result, the standards and requirements have failed to stay abreast of the issues facing those involved in school siting, design, construction, and maintenance. While the use of guidance documents helps address the “time lag” of administrative code, more frequent review and revision of state codes would be beneficial.																			
Reference / Research	(References that are highlighted are included in the 3-ring binder of materials provided to workgroup members. Please refer to these as needed while considering the proposals.)																			
Proposal A:	Recommend that within 5 years of the effective date of the new / revised school environmental health and safety rules, the DOH conduct a review of the status and effectiveness of rule implementation. The department is to submit the results of their review to the State Board of Health, including any recommendations for subsequent rule revision.		<table><tr><td rowspan="2">Proposal In?</td><td colspan="3">Workgroup Vote</td></tr><tr><td>GRN</td><td>YEL</td><td>RED</td></tr><tr><td>Rule</td><td>19</td><td>0</td><td>0</td></tr><tr><td>Guidance</td><td colspan="3">No Vote</td></tr></table>			Proposal In?	Workgroup Vote			GRN	YEL	RED	Rule	19	0	0	Guidance	No Vote		
Proposal In?	Workgroup Vote																			
	GRN	YEL	RED																	
Rule	19	0	0																	
Guidance	No Vote																			
Desired Outcomes	The effectiveness of current approaches and practices, as well as on-going needs for continued improvement in environmental health and safety in schools will be evaluated.																			